

MARYLAND HEALTH CARE COMMISSION

**HEALTH INSURANCE COVERAGE
IN MARYLAND ADULTS:
Demographic, Health Status, and Access to Care Differences**

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MARYLAND HEALTH CARE COMMISSION

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INTRODUCTION

The purpose of this chartbook is to provide information on uninsured, non-elderly adults aged 18-64 in Maryland. The tables and charts in the book summarize the relationships between demographic characteristics and health insurance coverage, the risk of being uninsured associated with selected demographic characteristics, and the impact of insurance coverage on the use of health services such as check-ups and screening procedures. The information comes from analyses conducted on the 1996 and 1997 Maryland Behavioral Risk Factor Surveillance Survey (BRFSS)¹ by staff of the Maryland Health Care Commission. Adults over age 65 were excluded from this study because nearly all persons over age 65 receive health insurance coverage through Medicare. Although Maryland's annual sample size for the BRFSS is quite large – in 1997 only the states of Idaho and Minnesota had a larger sample for ages 18-64 – two years of data were combined to increase the accuracy of estimates. (See the 'Data Sources' section for a description of the BRFSS and more information on how the analysis was conducted).

In 1996-1997, an estimated 11.0 (\pm 1.0) percent of respondents aged 18-64 – representing an average per year of over 351,000 adults in Maryland – did not report having insurance coverage in the BRFSS. This understates, to some degree, the number (proportion) of adults without health insurance because the BRFSS sample includes only households with a telephone. This excludes from the sample persons without a telephone, who have a greater-than-average risk of not having health insurance (e.g., persons who are living below the poverty level, unemployed, less educated, etc.). Therefore the estimated numbers of uninsured adults presented in the tables that follow should be viewed as the minimal number in that category without insurance. The upper end of the range is about 16.8 (\pm 2.0) percent of adults 18-64 in Maryland in 1995-1997 using estimates of insurance coverage from the Current Population Survey (CPS), a much smaller household survey conducted by the Census Bureau which is generally regarded to somewhat overstate the number of uninsured.

¹ Behavioral Risk Factor Surveillance Survey, 1996-1997. Survey Data, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention. Maryland's BRFSS is administered by the Community and Public Health Administration, Department of Health and Mental Hygiene.

ACKNOWLEDGEMENT

The Maryland Health Care Commission gratefully acknowledges Alyse Weinstein, Maryland Behavioral Risk Factor Surveillance Survey (BRFSS) Coordinator, for providing us with information on the BRFSS sampling and weighting schemes and expediting our data requests.

ALL ADULTS 18-64

Who goes without health insurance?

- **Younger adults are more likely to lack health insurance.**

More than one-half of the state's uninsured adults are between 18 and 34 years old. 21 percent fall into the 18-24 age group, the highest rate of any age group. Although these youngest adults constitute just 13 percent of the adult population in Maryland, they are 25 percent of the uninsured adults.

- **Lower levels of education are associated with lower levels of health insurance coverage.**

But 84 percent of all uninsured adults have completed school through at least the 12th grade.

- **Two-thirds of the uninsured are employed.**

Wage/salary employees account for the majority of the uninsured. However, the self-employed are at greater risk of having no insurance. One-fifth of the self-employed lack insurance compared to just 8 percent of those employed by firms. Given that employment is a primary source of health insurance it is somewhat surprising that more than one-half of the unemployed (excluding retirees, homemakers, and students) have health insurance.

- **Although lower levels of income are associated with greater risk of no insurance, nearly one-quarter of the uninsured have reported household incomes of \$25,000 – \$34,999.**

And, surprisingly, 15 percent of uninsured adults have household incomes of \$50,000 or more.

- **Adults who have never married are at greater risk for being uninsured.**

They comprise 27 percent of all Maryland adults but account for one-half of the uninsured. A higher probability of insurance coverage among married persons reflects several advantages over single adults with regard to insurance coverage, including increased opportunity for coverage through a spouse and higher levels of household income.

- **While minorities go without health insurance at twice the rate of non-Hispanic white residents, non-Hispanic whites still account for one-half of uninsured adults in Maryland.**

Non-Hispanic black residents – who are one-fourth of the adult population – account for a larger proportion of the uninsured at 39 percent.

TABLE 1. HEALTH INSURANCE COVERAGE AMONG MARYLAND ADULTS 18-64 YEARS BY SELECTED DEMOGRAPHIC CHARACTERISTICS, 1996 & 1997

DEMOGRAPHIC CHARACTERISTICS	TOTAL POPULATION		UNINSURED	
	Percent Uninsured within Subgroup	Percent Distribution by Characteristic	Percent Distribution by Characteristic	Estimated Yearly Population
AGE IN YEARS				
18 – 24	21.2	12.8	24.7	86,916
25 – 34	13.4	26.4	32.2	113,467
35 – 44	9.1	27.1	22.4	78,875
45 – 64	6.8	33.6	20.6	72,617
EDUCATION LEVEL				
DID NOT FINISH HIGH SCHOOL	22.9	7.5	15.6	54,893
FINISHED HIGH SCHOOL	13.3	57.6	69.6	244,905
FINISHED COLLEGE	4.7	34.9	14.8	52,078
EMPLOYMENT STATUS				
EMPLOYED FOR WAGES	8.1	71.0	52.4	184,383
SELF-EMPLOYED	20.7	8.0	15.1	53,133
UNEMPLOYED	44.0	3.8	15.2	53,485
STUDENT / HOMEMAKER / UNABLE TO WORK	13.4	13.2	16.1	56,652
RETIRED	3.3	4.0	1.2	4,223
ANNUAL HOUSEHOLD INCOME FROM ALL SOURCES				
UP TO \$24,999	28.8	16.6	47.5	167,141
\$25,000 TO \$34,999	15.4	15.2	23.3	81,987
\$35,000 TO \$49,000	6.6	22.2	14.7	51,726
\$50,000 AND UP	3.2	46.0	14.5	51,022
MARITAL STATUS				
MARRIED	5.9	61.3	32.6	114,711
DIVORCED / WIDOWED / SEPARATED	16.0	12.1	17.6	61,930
NEVER MARRIED	20.6	26.6	49.8	175,234
RACE				
WHITE, NON-HISPANIC	8.2	67.4	49.9	175,586
BLACK, NON-HISPANIC	17.1	25.3	39.3	138,287
OTHER	16.1	7.4	10.8	38,003
SEX				
MALE	11.6	49.1	51.7	181,919
FEMALE	10.5	50.9	48.3	169,956
TOTAL POPULATION	11.0	100.0%	100.0%	351,875

HOW TO READ THIS TABLE:

The first column indicates the proportion in the group (row) that lack health insurance. The distribution of the entire non-elderly adult population (2nd column) by each characteristic can be compared to the composition of the uninsured non-elderly adult population (3rd column). For each characteristic (e.g., age), these percentages sum to 100. The final column shows how the estimated number of uninsured non-elderly adults per year (351,875 total) are distributed within each demographic characteristic.

What is the risk of not having health insurance associated with age, race/ethnicity, employment status, and gender?

When age, race/ethnicity, educational level, employment status, and gender are considered simultaneously (Table 2):

- **Differences in health insurance coverage do not exist by gender.**

Although Table 1 seems to indicate a slight advantage for women, gender has no association with insurance coverage when it is considered in the context of other demographic variables.

- **Those who never finished high school are almost five times more likely to lack health insurance compared to those with a college degree.**

Residents with 12 years of education are 2.7 times more likely to lack health insurance compared to college graduates.

- **Minority residents are about twice as likely to be uninsured as white, non-Hispanic residents.**

Compared to their representation in the adult, non-elderly population, minorities comprise a higher percentage of the uninsured at every income level (see Table 3).

- **The unemployed are 1.8 times more likely to be without insurance than adults who are working.**

- **Young adults aged 18-24 are 2.7 times more likely than those aged 45-64 to be uninsured, after the effects of race, education, and employment status are taken into account.**

Those aged 25-34 have nearly the same odds of being without insurance at 2.3 times the uninsured rate of 45-64 year olds.

Regarding the relationship between age, income, and insurance status:

- **Younger adults account for a larger percentage of the uninsured than they do in the general population at every income level and the discrepancy increases as income rises.**

Younger adults (18-34) account for 69 percent of the uninsured with household incomes of \$50,000 or more, although they constitute just 32 percent of all adults in this income range (see Table 3). The difference is most dramatic for the 18-24 year olds, who comprise just 8 percent of those with incomes of \$50,000 or more, but account for almost one-third of the uninsured with this income.

TABLE 2. ADJUSTED ODDS RATIOS FOR RISK OF UNINSURANCE IN SELECTED DEMOGRAPHIC GROUPS OF MARYLAND ADULTS, 18-64, 1996 & 1997

	Sample	Adjusted Odds Ratio	95% Confidence Interval
Age*			
18-24	687	2.66	1.89, 3.74
25-34	1,769	2.28	1.75, 2.98
35-44	2,142	1.45	1.09, 1.93
45-64 (referent group)	2,679	..	..., ...
Race/Ethnicity*			
White (referent group)	5,460	..	..., ...
Non-White	1,817	1.97	1.58, 2.44
Educational level*			
Finished college or more (referent group)	2,382	..	..., ...
Finished HS	4,324	2.72	2.03, 3.63
Did not finish HS	561	5.23	3.52, 7.79
Employment*			
Not employed	1,838	1.78	1.36, 2.33
Employed (referent group)	5,116	..	..., ...

* Significant association between having health care coverage and demographic characteristic (chi-sq test, $P < .05$).

TABLE 3. AGE AND MINORITY¹ DISTRIBUTION BY HOUSEHOLD INCOME AND HEALTH INSURANCE STATUS, MARYLAND ADULTS, 18-64, 1996 & 1997

	UNDER \$25,000		\$25,000 - \$34,999		\$35,000 - \$44,999		\$50,000 AND HIGHER		ALL NON-ELDERLY ADULTS ²	
AGE GROUP	Total Population	Uninsured	Total Population	Uninsured	Total Population	Uninsured	Total Population	Uninsured	Total Population	Uninsured
18 - 24	19.0%	21.1%	13.2%	24.0%	9.2%	25.8%	7.8%	31.2%	10.8%	24.0%
25 - 34	26.3	28.0	33.6	39.2	30.9	44.3	24.0	38.1	27.4	34.4
35 - 44	20.1	23.7	23.0	25.5	29.5	16.1	32.4	11.8	28.3	21.3
45 - 64	34.6	27.2	30.2	11.3	30.4	13.8	35.7	18.9	33.5	20.3
Total Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
MINORITIES	48.8%	50.8%	39.2%	43.1%	31.2%	40.5%	23.2%	58.4%	31.7%	48.6%

¹ Non-white and/or Hispanic

² All non-elderly adults who reported their household income and insurance status; minority percentage among those also reporting their racial/ethnic status.

The uninsured and their reported health status and access to preventive care.

- **The vast majority of adults report themselves to be in good health, whether they have health insurance or not.**

More than 90 percent of the adult population in Maryland report themselves to be in excellent to good health and 85 percent of the uninsured report the same.

- **Even the majority of the currently uninsured have had a routine checkup in the past year.**

Forty-five percent of the uninsured population did not have a checkup in the past year, about two-thirds greater than the proportion of the general population who did not obtain a check-up: 27 percent. Because so many of those with health insurance failed to obtain check-ups, they account for more than four-fifths of the adult population who went without an annual check-up. This indicates that health insurance coverage does not ensure use of preventive care. Some of the possible non-insurance barriers to obtaining preventive care include out-of-pocket costs associated with the visit, time costs, and a lack of importance associated with preventive care.

- **Surprisingly, the majority of adults without insurance reported that cost was not a barrier to obtaining needed care.**

The majority of uninsured, 59 percent, report that they did not have a time when they needed to see a doctor but could not due to cost. As expected, the proportion of the uninsured who did report cost as a barrier to obtaining needed care was far greater than the corresponding percentage in the general population, 41 versus 9 percent.

- **In spite of lacking insurance, the majority of currently uninsured women managed to obtain Pap smears and breast exams within the past two years.¹**

Around 70 percent of uninsured women had Pap smears and about 72 percent had breast exams within the prior two years but both of these rates are below the general female population rates of 87 and 88 percent, respectively. The distribution of responses to the questions on the most recent Pap smear and physical breast exam closely mimic one another. This similarity may exist because the two exams are often conducted at the same visit.

Note: Some of those without insurance at the time of their response may have been insured at the time of their reported check-up. However, the majority of the uninsured reported being without insurance for over one year.

¹ U.S. Preventive Task Force Guidelines recommend routine screening for cervical cancer with Papanicolaou (Pap) testing for all women who are or have been sexually active and who have a cervix. Pap smears should be repeated at least every 3 years.

TABLE 4. HEALTH INSURANCE COVERAGE AMONG MARYLAND ADULTS 18-64 YEARS BY HEALTH STATUS AND SELECTED ACCESS AND PREVENTIVE MEASURES, 1996 & 1997

REPORTED HEALTH STATUS	TOTAL POPULATION		UNINSURED	
	Percent Uninsured within Subgroup	Percent Distribution by Characteristic	Percent Distribution by Characteristic	Estimated Yearly Population
BEEN TOLD BY DOCTOR YOU HAVE DIABETES				
YES	11.2%	3.8%	3.9%	13,723
NO	11.0	96.2	96.1	338,152
GENERAL HEALTH				
EXCELLENT, VERY GOOD OR GOOD	10.3	90.9	84.9	298,742
FAIR OR POOR	18.2	9.1	15.1	53,133
HEALTH CARE ACCESS AND PREVENTIVE MEASURES				
HOW LONG SINCE LAST ROUTINE CHECKUP				
WITHIN PAST YEAR	8.3	72.7	55.0	193,531
MORE THAN ONE YEAR OR NEVER	18.1	27.3	45.0	158,344
TIME WHEN COULD NOT AFFORD TO SEE DOCTOR				
YES	47.9	9.4	41.1	144,621
NO	7.2	90.6	58.9	207,254
HOW LONG SINCE LAST PAP SMEAR*				
WITHIN THE PAST TWO YEARS	8.3	87.4	69.8	17,067
TWO TO FIVE YEARS AGO	25.4	4.5	11.0	116,438
FIVE OR MORE YEARS AGO	22.3	4.2	8.9	18,361
NEVER	26.9	4.0	10.2	14,916
HOW LONG SINCE LAST PHYSICAL BREAST EXAM*				
WITHIN THE PAST TWO YEARS	8.3	88.4	71.5	20,750
TWO TO FIVE YEARS AGO	24.5	4.1	9.8	117,100
FIVE OR MORE YEARS AGO	22.1	2.8	6.0	16,114
NEVER	27.6	4.7	12.7	9,899
TOTAL POPULATION	11.0	100.0%	100.0%	351,875

* For women 18-64.

HOW TO READ THIS TABLE:

The first column indicates the proportion in the group (row) that lack health insurance. The distribution of the entire non-elderly adult population (2nd column) for each characteristic or access measure can be compared to the composition of the uninsured non-elderly adult population (3rd column). For each characteristic/measure (e.g., general health) these percentages sum to 100. The final column shows how the estimated number of uninsured non-elderly adults per year (351,875 total) are distributed across the responses for each measure.

Why do women forgo mammograms?

- Only 85 percent of women aged 50-64 reported obtaining a mammogram within the past two years.¹

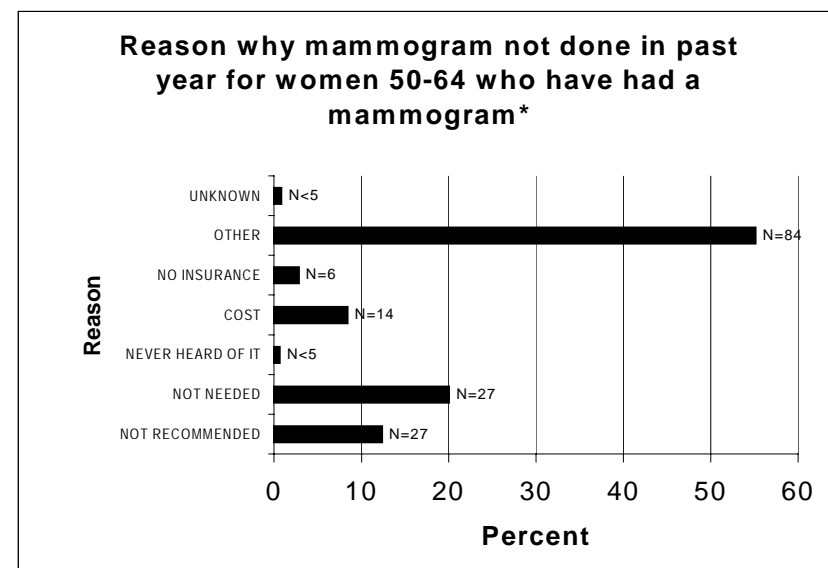
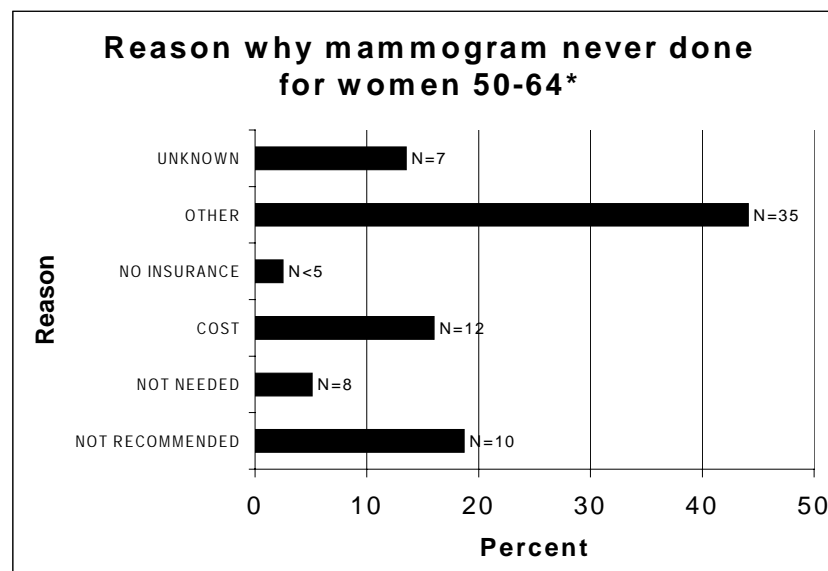
Of the 15 percent who did not get a mammogram within this time period, more than half reported never having gotten a mammogram. Since there are programs offering free mammograms in Maryland, the availability of mammograms differs from other services. In theory, there are no financial barriers to obtaining this important screening procedure.

- Factors other than cost/no insurance are cited as the main reasons women do not obtain mammograms.

Although the sample size for this population is very small, follow-up questions suggest that lack of insurance or out-of-pocket costs account for at most one-fifth of those not obtaining mammograms. The primary reason given was “other” which may relate to the physical discomfort associated with mammograms. About one-fifth to one-third cited the screening as not needed or not recommended by their physician. These responses indicate that free mammograms by themselves will not result in high levels of this important screen.

¹ U.S. Preventive Task Force Guidelines recommend routine screening for breast cancer every 1-2 years, with mammography alone or mammography and annual clinical breast examination (CBE), recommended for women aged 50-69.

² MHCC analyses of the 1996-1997 Maryland BRFSS not shown here.

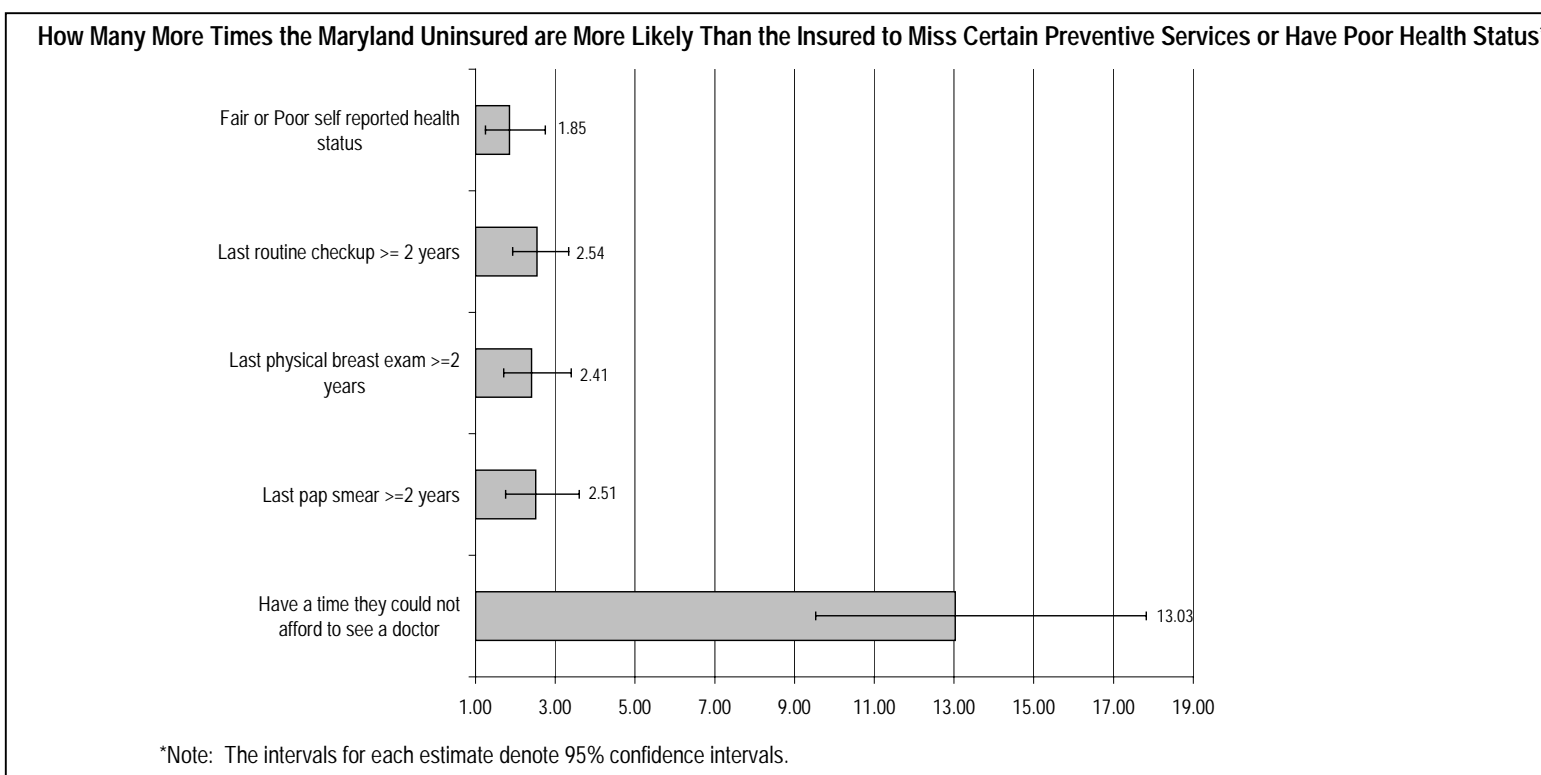


* Percents represent weighted estimates. Caution advised in interpretation of percentages with N<50.

How much impact does insurance have on health status and access to care?

After controlling for the effects of age, race/ethnicity and educational level:

- When compared to insured adults, those with no insurance are 13 times more likely not to see a doctor when needed due to cost.
- The uninsured are twice as likely not to have received a checkup, a Pap smear, or a physical breast exam in the past two years.
- Uninsured adults are about 1.8 times more likely to report fair or poor health status than the insured.



EMPLOYED ADULTS 18-64

Who among the employed goes without health insurance?

- **The trends in insurance coverage observed in the general adult population with regard to level of education, type of employment, and marital status (see page 1) are also apparent in the employed population.**

Those with at least 12 years of education comprise a slightly higher percentage of the working uninsured than in all uninsured adults: 87 versus 84 percent. As might be expected, the proportion without insurance at each educational level is slightly smaller among employed adults. The self-employed, who account for 15 percent of the uninsured among all adults, account for 22 percent of the working uninsured. As expected, the proportion lacking health insurance in each marital status category is somewhat smaller for those who are employed relative to the entire adult population but the largest decrease occurs among those who are divorced, widowed, or separated.

- **Racial disparities decrease in the working population.**

Although the uninsured rates are lower for all racial/ethnic groups among the employed relative to the general population, the reductions are greater for minorities. The uninsured rates for black / non-Hispanic and other minority adults are about 3 percentage points lower in the employed population compared to their rates among all adults.

- **The association between young age and a lack of health insurance is even more pronounced in the working population than in the general population.**

Although 21 percent of those 18-24 lack insurance in the general population, 24 percent of working 18-24 year olds lack insurance. Homemakers covered by their spouse's insurance, students insured through family or school-related policies, as well as young mothers covered through Medicaid, are included in the analysis of the general population making the uninsured rate lower for all young adults than for employed young adults.

- **Those who earn less than \$25,000 in total household income make up a smaller percent of the working uninsured than among all the uninsured, while the reverse is true for those with incomes of \$25,000 to \$49,000.**

However, those in the lowest income category appear to have a slightly greater risk of being uninsured than in the general population, 30 versus 29 percent. This contrasts to the general trend of lower uninsured rates for the working population relative to the general population within most of the demographic categories. The slightly lower rate at this income level in the general population is probably the result of publicly funded health insurance for some of the low-income and disabled unemployed.

**TABLE 5. HEALTH INSURANCE COVERAGE AMONG EMPLOYED MARYLAND ADULTS 18-64 YEARS
BY SELECTED DEMOGRAPHIC CHARACTERISTICS, 1996 & 1997**

DEMOGRAPHIC CHARACTERISTICS	TOTAL POPULATION		UNINSURED	
	Percent Uninsured within Subgroup	Percent Distribution by Characteristic	Percent Distribution by Characteristic	Estimated Yearly Population
AGE IN YEARS				
18 – 24	24.2%	10.0%	25.9%	61,215
25 – 34	11.1	28.9	34.2	80,833
35 – 44	7.7	30.1	24.5	57,906
45 – 64	4.7	31.0	15.4	36,398
EDUCATION LEVEL				
DID NOT FINISH HIGH SCHOOL	22.0	5.4	12.8	30,141
FINISHED HIGH SCHOOL	12.1	56.1	72.3	170,791
FINISHED COLLEGE	3.7	38.5	15.0	35,421
EMPLOYMENT STATUS				
EMPLOYED FOR WAGES	8.1	89.9	77.7	183,646
SELF-EMPLOYED	20.7	10.1	22.3	52,707
ANNUAL HOUSEHOLD INCOME FROM ALL SOURCES				
UP TO \$24,999	29.7	12.6	44.1	104,232
\$25,000 TO \$34,999	14.5	15.0	25.7	60,743
\$35,000 TO \$49,000	6.1	23.2	16.6	39,235
\$50,000 AND UP	2.3	49.2	13.6	32,144
MARITAL STATUS				
MARRIED	4.6	62.9	30.8	72,797
DIVORCED / WIDOWED / SEPARATED	13.8	12.0	17.6	41,598
NEVER MARRIED	19.2	25.2	51.6	121,958
RACE				
WHITE, NON-HISPANIC	7.3	68.5	53.3	125,976
BLACK, NON-HISPANIC	14.1	24.7	37.2	87,923
OTHER	13.3	6.7	9.5	22,453
SEX				
MALE	10.1	53.4	57.6	136,139
FEMALE	8.5	46.6	42.4	100,214
TOTAL POPULATION	9.4	100.0%	100.0%	236,353

HOW TO READ THIS TABLE:

The first column indicates the proportion in the group (row) that lack health insurance. The distribution of the entire employed non-elderly adult population (2nd column) by each characteristic can be compared to the composition of the uninsured employed non-elderly adult population (3rd column). For each characteristic (e.g., age), these percentages sum to 100. The final column shows how the estimated number of uninsured employed non-elderly adults per year (236,353 total) are distributed within each demographic characteristic.

What is the risk of not having health insurance associated with age, race/ethnicity, type of employment, and gender among the employed?

When age, race/ethnicity, educational level, employment status, and gender are considered simultaneously (Table 6):

- **As in the general population, health insurance coverage does not differ by gender.**
- **The effect of age on the risk of being uninsured is more dramatic for the working population.**
The 18-24 age group is seven times more likely to be uninsured than the 45-64 age group, while this risk in the total population was just 2.7 times higher. As discussed on page 14 the exclusion of homemakers, students, and unemployed young mothers insured through public programs reveals the higher risk of no insurance among employed young adults. The age-related risk of having no insurance seems greater for employed adults than the general population in other age categories as well, however these differences do not attain statistical significance.
- **The racial/ethnic difference in insurance coverage and the association of lower levels of education with higher risk of being uninsured among employed adults are the same as in the general population.**
Those employed who did not graduate from high school are almost eight times more likely to lack health insurance than those who are college graduates. However, this is not statistically different from the corresponding odds ratio in the general population of 5.2.
- **The self-employed are 4.7 times more likely to lack health insurance than are wage/salary employees.**
The risk of associated with being self-employed (relative to wage/salary employees) is greater than the odds of being uninsured for the unemployed (relative to those with jobs), 1.8.

Regarding the relationship between type of employment, income, age and insurance status:

- **Neither younger age nor lower income accounts for the disparity in uninsured rates between wage-earners and those who are self-employed.**
As shown in Tables 1 and 5, the proportion of the self-employed who are uninsured is much greater than the rate of uninsurance among wage-earners, 21 versus 8 percent. Although younger age and/or lower income levels among the self-employed might explain some of this gap, Table 7 shows that, in fact, the self-employed are older and may even have slightly higher levels of household income compared to wage-earners. Differences in access or the lack of an employer subsidy for the insurance premium could account for the coverage gap between these employment groups.

TABLE 6. ADJUSTED ODDS RATIOS FOR RISK OF UNINSURANCE IN SELECTED DEMOGRAPHIC GROUPS OF MARYLAND WORKING ADULTS, 18-64, 1996 & 1997

	Sample	Adjusted Odds Ratio	95% Confidence Interval
Age*			
18-24	430	7.27	4.76, 11.11
25-34	1,515	3.08	2.18, 4.36
35-44	1,853	1.82	1.29, 2.57
45-64 (referent group)	1,955	...	... ..
Race/Ethnicity*			
White, Non-Hispanic (referent group)	4,343	...	... ..
Minority	1,410	2.00	1.55, 2.59
Educational level*			
Finished college or more (referent group)	2,081	...	... ..
Finished High School	3,328	3.05	2.16, 4.31
Did not finish High School	339	7.95	4.88, 12.96
Employment*			
Self-employed	5,116	4.66	3.42, 6.35
Employed for Wages (referent group)	637	...	... ..

* Significant association between having health care coverage and demographic characteristic (chi-sq test, P<.05)

TABLE 7. AVERAGE AGE AND INCOME DISTRIBUTION OF EMPLOYED MARYLAND ADULTS 18-64 BY TYPE OF EMPLOYMENT, 1996 & 1997

	WAGE-EARNERS	SELF-EMPLOYED
AVERAGE AGE IN YEARS *	38 ± 1	42 ± 1
HOUSEHOLD INCOME FROM ALL SOURCES		
Less than \$25,000	15.2%	13.6%
\$25,000 - \$34,999	23.4	21.3
\$35,000 - \$49,999	12.3	15.6
\$50,000 and higher	49.1	49.5
TOTAL PERCENT	100%	100%

* Age range listed is the 95 percent confidence interval rounded to whole years.

How does the relationship of insurance to health status and access to preventive care in employed adults compare to the general population?

- **Those who work have even higher proportions of persons - with and without health insurance - who report themselves to be in excellent to good health compared to the total adult population.**
The percentages for employed adults are 94 and 88 percent, respectively, compared to the 91 and 85 percent, respectively, for the total population. This follows from the fact that a chronic illness may render a person unable to work. For example, a slightly lower proportion of the employed have diabetes compared to all adults: 3 versus 4 percent. (Diabetes is listed in this and the previous table.)
- **As observed among all uninsured adults, the majority of working uninsured obtained a routine check-up within the past year and the percentages are the same in both uninsured populations.**
Similarly the proportion of employed adults who obtained an annual check-up, 72 percent, is nearly identical to the percentage of all adults who obtained an annual check-up.
- **The proportion of uninsured employees who reported not being able to obtain needed care within the past year due to cost is identical to the proportion reported by all uninsured adults.**
For both populations, 41 percent of the uninsured reported out-of-pocket costs to be a barrier to obtaining needed care, while the majority did not.
- **A greater proportion of uninsured working women had a Pap smear or breast exam within the last two years compared to all uninsured women.**
76 percent of uninsured women who work obtained these screening procedures, while 70 and 72 percent, respectively, of all uninsured women received these screens. The overall rates for these procedures in working women were also higher than the 2-year screening rates in all women. This may result from higher educational levels in working women..

TABLE 8. HEALTH INSURANCE COVERAGE AMONG EMPLOYED MARYLAND ADULTS 18-64 YEARS BY HEALTH STATUS AND SELECTED ACCESS AND PREVENTIVE MEASURES, 1996 & 1997

	TOTAL POPULATION		UNINSURED	
	Percent Uninsured within Subgroup	Percent Distribution by Characteristic	Percent Distribution by Characteristic	Estimated Yearly Population
REPORTED HEALTH STATUS				
BEEN TOLD BY DOCTOR YOU HAVE DIABETES				
YES	8.9%	3.0%	2.8%	6,618
NO	9.4	97.0	97.2	229,735
GENERAL HEALTH				
EXCELLENT, VERY GOOD OR GOOD	8.9	93.5	88.2	208,463
FAIR OR POOR	17.0	6.5	11.8	27,890
HEALTH CARE ACCESS AND PREVENTIVE MEASURES				
HOW LONG SINCE LAST ROUTINE CHECKUP				
WITHIN PAST YEAR	7.1	71.5	54.7	129,285
MORE THAN ONE YEAR OR NEVER	14.9	28.5	45.3	107,068
TIME WHEN COULD NOT AFFORD TO SEE DOCTOR				
YES	48.2	8.0	40.9	96,668
NO	6.0	92.0	59.1	139,684
HOW LONG SINCE LAST PAP SMEAR*				
WITHIN THE PAST TWO YEARS	7.2	90.4	76.3	5,551
TWO TO FIVE YEARS AGO	24.2	4.0	11.4	75,257
FIVE OR MORE YEARS AGO	16.5	3.4	6.7	11,232
NEVER	22.5	2.1	5.6	6,619
HOW LONG SINCE LAST BREAST PHYSICAL EXAM*				
WITHIN THE PAST TWO YEARS	6.9	90.9	75.6	7,772
TWO TO FIVE YEARS AGO	25.0	3.8	11.6	73,025
FIVE OR MORE YEARS AGO	17.6	2.3	4.9	11,164
NEVER	22.5	3.0	8.0	4,688
TOTAL POPULATION	9.4	100.0%	100.0%	236,353

* For women 18-64.

HOW TO READ THIS TABLE:

The first column indicates the proportion in the group (row) that lack health insurance. The distribution of the entire employed non-elderly adult population (2nd column) for each characteristic or access measure can be compared to the composition of the uninsured employed non-elderly adult population (3rd column). For each characteristic/measure (e.g., general health) these percentages sum to 100. The final column shows how the estimated number of uninsured employed non-elderly adults per year (236,353 total) are distributed across the responses for each measure.

IMPLICATIONS

- **Efforts targeted at providing health insurance to only the state's lowest income residents will not address the majority of the state's uninsured population.**

Although the risk of being uninsured is greatest for adults with household incomes under \$25,000, more than one-half of uninsured adults reside in households with higher incomes and nearly one-third have incomes of \$35,000 or more. Public programs often focus on those below to just above the poverty level. The average 1996-1997 federal poverty level ranged from \$7,815 for one person to \$15,825 for a four-person family, so that a program limited to 200 percent of poverty would be expected to help no more than half of the state's uninsured adults.

- **A percentage of those who go without health insurance may have sufficient funds to purchase health insurance, but do not see it as a priority.**

- By law, the Maryland Health Care Commission establishes benefits in the small group insurance market assuming that workers will be willing to spend up to 12 percent of Maryland's average annual wage (\$31,764 in 1997) to purchase health insurance. Instead it appears that many of the uninsured – 30 percent of whom have incomes of \$35,000 or more – forgo the expense of health insurance because their anticipated out-of-pocket cost for care is significantly less than what they must pay in health care premiums. Most of the uninsured are in good or excellent health and the majority obtain an annual check-up.
- Community-rated and large-firm premiums average the total anticipated health expenditures across all ages, making the premium less than the anticipated expense for older adults but greater than the anticipated expense for younger adults. The findings presented here suggest that young adults 18-24 are sensitive to this cost-shifting and respond by refusing to purchase health insurance regardless of their household income.
- The discrepancy in insurance coverage between the self-employed and wage-earners also seems related to premium cost rather than income, age, or access. (The self-employed have been able to buy insurance in Maryland's small group market since 1996). If they were able to purchase their insurance with pre-tax dollars, like wage-earners, more of the self-employed would probably purchase insurance. Congress recently placed this provision into a tax bill that was rejected by President Clinton.

- **Health insurance does not ensure access to needed care or use of recommended screening procedures.**

Although the uninsured are more likely to go without needed care because of cost than the insured, the majority – 52 percent – of all adults who did not obtain needed care for reasons of cost had health insurance. Required cost sharing (i.e., copayments, coinsurance, and deductibles) has been shown to serve as a deterrent to use of services for persons of low or moderate incomes. Cost sharing is greatest in indemnity type plans where the coinsurance is a percentage, (typically 20 percent) of the total bill rather than a fixed amount. Additionally, persons may not obtain recommended preventive care and screening procedures, such as annual check-ups and mammograms for reasons other than cost. Campaigns to promote use of these services cannot focus only on access but must address personal priorities and concerns related to the procedures themselves, such as pain.

SOURCE OF DATA FOR THIS REPORT

The Behavioral Risk Factor Surveillance Survey is a state-based survey of noninstitutionalized adults 18 years and older conducted by the 50 states in cooperation with the Centers for Disease Control and Prevention (CDC).¹ It is a population-based, random digit-dialed telephone survey that collects information on a variety of risk behaviors related to chronic and infectious diseases, as well as injury. Each year the survey includes questions on health coverage and self-perceived health status, and questions regarding the use of certain preventive services dependent on the year. Data are weighted to reflect each respondent's probability of selection and the age, gender, and racial/ethnic composition of the respondent's state of residence.

For this study, determination of insurance coverage was determined by an algorithm that used an individual's responses to all of the questions on health insurance coverage* included in the survey. This differs from published analyses of insurance coverage conducted by the CDC, which uses the response to the initial question only. The MHCC analysis focused on preventive health services prioritized in the national health objectives for year 2000. Crude prevalence rates and adjusted odds ratios (adjusted for age, race/ethnicity, educational level, and employment status) compare health insurance coverage among the state's adults and the use of services and self-rated health status between the uninsured and the insured. Stata® software was used to conduct the comparative analyses because it incorporates information from the weights in the calculation of the standard errors. To permit adequate sample size for this analysis, the two most recent years of BRFSS data available at the time of the study, 1996 and 1997, were combined. The rate of insurance coverage for Maryland adults was the same in each of these years, lending validity to the analytical results from the pooled data. Of the 7,291 persons who participated in the 1996-1997 Maryland BRFSS, 7,277 persons aged 18-64 responded to the questions about health care coverage.

*Health Insurance Status Calculation:

All respondents were asked, "Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs (health maintenance organizations), or government plans such as Medicare?" Those who answered yes were then asked a couple of questions to identify the type of health care coverage used to pay for most of their medical care. Those who initially answered that they did not have insurance were asked, "There are some types of coverage you may not have considered. Please tell me if you have any of the following." Persons who were able to identify a particular type of coverage at any one of these questions at the time of the interview were considered to be insured. The percent estimates for insurance status exclude respondents who did not give information on their insurance coverage.

Behavioral Risk Factor Surveillance Survey, 1996-1997. Survey Data, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention. Maryland's BRFSS is administered by the Community and Public Health Administration, Department of Health and Mental Hygiene.